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09/990,842	11/21/2001	Paul A. Moskowitz	CHA920010021US1	2704

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EXAMINER

NELSON, FREDA ANN

ART UNIT	PAPER NUMBER
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3628

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/990,842

Applicant(s)

MOSKOWITZ ET AL.

Examiner

Freda A. Nelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/03/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-17 and 19-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-17, 19-25, and 33-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The Appeal Brief received on November 3, 2006 is acknowledged and entered. Claims 26-32 have been withdrawn. Claims 7 and 18 have been canceled. No claims have been added. Claims 1-6, 8-17, and 19-38 are currently pending.

Response to Amendment and Arguments

Applicant's arguments, see ARGUMENT pages 5-6, filed November 3, 2006, with respect to the rejection(s) of claim(s) 1-2, 8, 10, 12, 14 and 33 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Albertshofer (US Patent Number 6,230,081).

Information Disclosure Statement

The information disclosure statement (IDSs) submitted on 12/15/06 and 2/2/07 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner. Copies of PTO-1449s are attached hereto.

Claim Rejections - 35 USC § 112

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, the examiner is unable to determine from the claim language "wherein a security system comprises an encryption system" what the applicant is actually claiming. Does the local data processing system comprise a security system? If not, does the processor comprise a security system?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1-2, 8, 13-14, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albershofer (US Patent Number 6,230,081), in view of Van De Pavert (Patent Number 5,914,471).**

As per claims 1, 8, 12, 14 and 33, Albershofer discloses a sensor for gathering usage data from the remote apparatus (col. 3, lines 31-39; col. 5, lines 10-15; see claim 12); and

a processor for processing the gathered usage data and calculating a charge based on the gathered usage data (col. 29, line 29-39; abstract).

Dar et al. does not expressly disclose wherein a security system comprises an encryption system for encrypting usage data transmitted between the sensor and the processor.

However, Van De Pavert discloses an invention which relates to the secure storage of cost data in counters of public telephone sets of the type where a caller pays by means of a card, such as a so-called "chip" card and relates to recording usage data in general and cost data in particular for machines through which the purchaser pays by means of a card, such as, e.g., vending machines for sweets or for soft drinks, certain types of parking meters and stamp vending machines wherein the term "card" should be taken to refer to any type of card (or equivalent of a card) which enables the user to make use of the machine in question. Van De Pavert further disclose that here, the card advantageously and illustratively comprises a microprocessor 50 for processing data; memory 40 having a random access memory (RAM) 47 for temporarily storing data, such as usage data; and, optionally, cryptographic circuitry (54) for performing cryptographic operations, e.g., encryption and decryption (col. 15, line 2-18; FIG. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the feature of Van De Pavert in order to provide enhanced security (Van De Pavert; col. 4, lines 37-44).

As per claim 2, Albershofer discloses a communications system for transmitting the calculated charge to a central server via a wireless transmission channel (col. 1, lines 40-48).

As per claim 13, Albershofer discloses the system of claim 1, wherein the sensor measures a speed of the apparatus (col. 1, lines 55-61).

As per claim 14, Albershofer discloses wherein the sensor collects data from a GPS system (col. 6, line 66-col. 7, line 2)

2. Claims 3-5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albershofer (US Patent Number 6,230,081), in view of Van De Pavert (Patent Number 5,914,471), still in further view of Ando et al. (Patent Number 5,955,970).

As per claims 3-5, Albershofer does not disclose a security system comprising a tamper resistant encasement that encases at least one component of the local data processing system. Dar et al. does not further disclose that the security system comprises an encryption system for encrypting usage data transmitted between the sensor and the processor.

However, Ando et al. disclose that the on-board device must include a security system for protecting monetary data stored therein and ensuring legitimate communication with the stationary device (col. 1, lines 26-30). Ando et al. further disclose that the illegitimate opening of the on-line device can be detected by sensing the removal of screws fastening a circuit board to a case of the on-board device (col. 2, lines 7-9). Ando et al. still further disclose that the switch is connected to a processor of the on-board device to detect the removal of the screws (col. 2, lines 11-13). Ando et

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al. further disclose that Detectors 5 and 7 detect a vehicle and set a timing of Communication between the on-board device and the stationary device. Gate entrance detector 9 and gate exit detector 10 set a timing of opening and closing the gate (col. 3, lines 30-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the security system feature of Ando et al. in order to protect the monetary data stored therein the sensor (Ando et al.; col. 1, lines 26-30).

As per claim 15, Albershofer does not disclose that the sensor measures weight placed on the remote apparatus, however it is old and well known that condition responsive indicating systems/sensors are sensitive to touch or weight placed on remote apparatuses.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the sensor which measures weight in order to avoid intrusion.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albershofer, in view of Van De Pavert, in further view of Ando et al., still in further view of Force et al. (Patent Number 5,533,123).

As per claim 6, Albershofer does not disclose that that the tamper resistant encasement comprises an epoxy having a signature embedded therein.

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However, Force et al. disclose that various encryption schemes have been proposed, such as where a user creates and authenticates a secure digital signature, which is very difficult to forge and thus equally difficult to repudiate (col. 4, lines 16-19).

Force et al. does not teach that the encasement comprises and epoxy, however it is old and well known in the computer arts that epoxy is more durable and tougher encasement.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the epoxy encasement to get the advantage of an inexpensive, but durable encasement.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albershofer, in view of Van De Pavert, in further view of Ando et al., still in further view of Force et al., still in further view of Davis et al. (Patent Number 5,844,986).

As per claim 9, Dar et al. does not disclose that the processor comprises a cryptographic coprocessor.

However, Davis et al. disclose that a cryptographic coprocessor containing the BIOS memory device performs authentication and validation on the BIOS upgrade based on a public/private key protocol wherein the authentication is performed by verifying the digital signature embedded in the BIOS upgrade (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the feature

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of Davis et al. in order to prevent an attacker from trying to corrupt the BIOS contents (col. 2, lines 1-7).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albershofer (US Patent Number 6,230,081), in view of Van De Pavert (Patent Number 5,914,471), still in further view of Dar et al. (US PG Pub. 2001/0039509.

As per claim 10, Albershofer does not disclose the system of claim 1, wherein the charge comprises an insurance cost.

However, Dar et al. disclose the data processor includes a vehicle insurance billing data processor (paragraph [0025]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Albershofer to include the Dar et al. on order to provide a variety of uses for the data.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albershofer et al. in view of Van De Pavert, in further view of Ehrman et al. (US PG Pub. 2001/0037298).

As per claim 11, Albershofer does not disclose that the charges comprise a rental cost.

However, Ehrman et al. disclose that in some instances the results are entered into a hand held computerized recordation device for entry into the agency computer

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database for calculation of the final rental charge (either while the lessee waits or as a supplement to the original charge on the initially tendered credit card).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the feature of Erhman et al. in order to effect payments for vehicle-related services including vehicle rentals (Erhman et al.; paragraph [0002]).

7. Claims 16, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dar et al. in view of Van De Pavert.

As per claims 16 and 23, Dar et al. disclose a system for managing usage information collected on a remote apparatus, comprising:

a central server for receiving information from the remote apparatus, and processing the information to obtain a usage payment (paragraph [0039]);

a local data processing system installed on the remote apparatus (paragraph [0038]), having:

a monitoring system for gathering usage data from the remote apparatus (paragraph [0125]) { without requiring any intervention by the driver, a parking communicator 104, receiving a location input from GPS receiver 102, transmits a message in a wireless manner to a central unit 106, which in turn provides data used for effecting payment for parking};

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a processor for managing the usage data (paragraph [0039]) {at least one data processor which provides a billing data output in respect of a vehicle-related service}

a communications system for communicating information from the processor to the central server (paragraphs [0038],[0125]).

Dar et al. does not disclose a security system which includes an encryption system. Ando et al. disclose that the on-board device must include a security system for protecting monetary data stored therein and ensuring legitimate communication with the stationary device (col. 1, lines 26-30). Ando et al. further disclose that the illegitimate opening of the on-line device can be detected by sensing the removal of screws fastening a circuit board to a case of the on-board device (col. 2, lines 7-9). Ando et al. further disclose that the switch is connected to a processor of the on-board device to detect the removal of the screws (col. 2, lines 11-13). Ando et al. still further disclose that Detectors 5 and 7 detect a vehicle and set a timing of Communication between the on-board device and the stationary device. Gate entrance detector 9 and gate exit detector 10 set a timing of opening and closing the gate (col. 3, lines 30-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the security system feature of Ando et al. in order to protect the monetary data stored therein the sensor (Ando et al.; col. 1, lines 26-30).

As per claim 21, Dar et al. disclose the system of claim 20, wherein the usage payment comprises an insurance payment (paragraph [0025]) *{the data processor includes a vehicle insurance billing data processor}*.

8. Claims 17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dar et al. in view of Van De Pavert , in further view of Ando et al. (Patent Number 5,955,970).

As per claims 17 and 19-20, Dar et al. does not disclose a security system comprising a tamper resistant encasement that encases at least one component of the local data processing system. Dar et al. does not further disclose that the security system comprises an encryption system for encrypting usage data transmitted between the sensor and the processor.

Ando et al. disclose that the on-board device must include a security system for protecting monetary data stored therein and ensuring legitimate communication with the stationary device (col. 1, lines 26-30). Ando et al. further disclose that the illegitimate opening of the on-line device can be detected by sensing the removal of screws fastening a circuit board to a case of the on-board device (col. 2, lines 7-9). Ando et al. still further disclose that the switch is connected to a processor of the on-board device to detect the removal of the screws (col. 2, lines 11-13). Ando et al. further disclose that Detectors 5 and 7 detect a vehicle and set a timing of Communication between the on-board device and the stationary device. Gate entrance detector 9 and gate exit detector 10 set a timing of opening and closing the

gate (col. 3, lines 30-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the security system feature of Ando et al. in order to protect the monetary data stored therein the sensor (Ando et al.; col. 1, lines 26-30).

9. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dar et al. in view of Van De Pavert, in further view of Ando et al., still in further view of Ehrman et al. (US PG Pub. 2001/0037298).

As per claim 22, Dar et al. disclose that there is also a vehicle-related fee payment system including at least one data processor which provides a billing data output in respect of a vehicle-related use fee which is dependent on the time during which the vehicle is being operated (paragraph [0068]).

Dar et al. does not disclose that the charges comprise a rental cost.

However, Ehrman et al. disclose that in some instances the results are entered into a hand held computerized recordation device for entry into the agency computer database for calculation of the final rental charge (either while the lessee waits or as a supplement to the original charge on the initially tendered credit card).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the feature of Ehrman et al. in order to effect payments for vehicle-related services including vehicle rentals (paragraph 0002).

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10. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dar et al. in view of Van De Pavert, in further view of Ando et al. in further view of Ehrman et al. (US PG Pub. 2001/0037298).

As per claims 24-25, Dar et al. does not disclose that the usage payment comprises an insurance or a rental fee.

However, Erhman et al. disclose that the customer enters a selected vehicle, punches in the prompted rental (e.g., rental duration, fuel option, insurance coverage option, return option, etc.) and identification information and, when instructed, swipes a credit card through the reader to activate the system, with transmission of all the information to the central billing and maintenance data base which transmits details to the checkout gate, where a rental agreement is printed out, when the vehicle arrives at the gate (paragraph 0031).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the payment feature of Erhman et al. in order to include in-vehicle check out and payment device operatively linkable to the transmitting sensor of the vehicle (Erhman, abstract).

11. Claims 34-35 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dar et al. in view of Van De Pavert, in further view of Shimizu et al. (US PG Pub. 2002/0111822).

As per claims 34-35, Dar et al. disclose that the data processor includes a vehicle insurance billing data processor.

Dar et al. does not expressly disclose obtaining an electric payment.

However, Shimizu et al. disclose that an IC card might be used to subtract the beneficiary fee or add the provider compensation shown in FIG. 60 through FIG. 65; and if employed to subtract beneficiary fees, it would function in the same way as a prepaid card and to add provider compensation, it would be used like a debit card (paragraph [0283]).

Shimizu et al. further disclose that if memory medium 5720 could also be used for general purchases (i.e., to pay for other transactions), its utility would be enhanced. If the memory medium does not have the capability of being used to pay for general purchases, it should still be able to be credited or debited in an ATM machine by accessing the information mediator's account and adding or subtracting the amount recorded on the card (paragraph [0283]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the feature of Van De Pavert and Shimizu et al. in order to provide the convenience of credit card payments.

As per claims 37-38, Dar et al. do not disclose the method wherein the usage data is encrypted prior to being communicated to the processor. Dar et al. do not further disclose wherein the charge is encrypted prior to being communicated to the server.

However, Shimizu et al. disclose that identity verification, then, is executed as preprocessing (setup) before data can be exchanged with the mediator. In other words, the mediator issues validation (data) 2701 to the machine or device to which it is connected via a network before the contract is in effect and based on these validation data, it can recognize which machine or device is communicating with it in the future wherein validation data 2701 may consist of a recognition code, a string in machine code used to recognize a machine or device, or they may be a cryptographic key or some other encrypted code (paragraph [0207]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the feature of Shimizu et al. in order to provide a secure transfer of information.

12. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dar et al. in view of Van De Pavert, in further view of Shimizu et al., still in further view of Ehrman et al. (US PG Pub. 2001/0037298).

As per claim 36, Dar et al. disclose that there is also a vehicle-related fee payment system including at least one data processor which provides a billing data output in respect of a vehicle-related use fee which is dependent on the time during which the vehicle is being operated (paragraph [0068])

Dar et al. does not disclose that the charge is a rental cost.

However, Ehrman et al. disclose that in some instances the results are entered into a hand held computerized recordation device for entry into the agency computer

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database for calculation of the final rental charge (either while the lessee waits or as a supplement to the original charge on the initially tendered credit card).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the feature of Erhman et al. in order to include the feature of Erhman et al. in order to effect payments for vehicle-related services including vehicle rentals (Ehrman et al; paragraph [0002]).

Conclusion

13. The examiner has cited prior art of interest, for example:

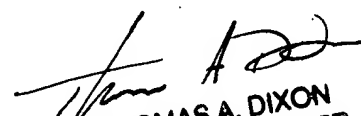
- 1) Hashimoto (US Patent Number 6,696,981), which disclose an apparatus for managing entry and exit of a shared vehicle.
- 2) Kao et al. (US Patent Number 6,618,772), which disclose a method and apparatus for selecting, monitoring, and controlling electronically powered devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freda A. Nelson whose telephone number is (571) 272-7076. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FAN 03/18/2007



THOMAS A. DIXON
PRIMARY EXAMINER